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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,775	10/24/2000	Charles D. Ray	Q00-1042-US1	2360

32093 7590 06/13/2005

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EXAMINER	
DAVIDSON, DAN	

ART UNIT	PAPER NUMBER
2651	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/695,775	RAY ET AL.	
	Examiner	Art Unit	
	Dan I. Davidson	2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5,6,12,30,32 and 34-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *40-49* is/are allowed.

6)☒ Claim(s) *1,3,5,6,30,32 and 34-36* is/are rejected.

7)☒ Claim(s) *12, 37-39* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed February 15, 2005 has been received and has been made of record. An Office Action in response to the above amendment follows.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, 5-6, 30, 32, and 34-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Chew et al (US 6,567,233 B1).

Re claim 1; Chew et al disclose a data transfer driver for a disk drive (Fig. 4; col. 4, line 41) including one or more magnetic data disks having one or more recording surfaces (col. 4, lines 41-43), a plurality of data transducer heads positionable relative to the recording surfaces (Fig. 4, 415-414, 425-424) by a head position actuator structure (Fig. 7, Plant) operating within a head position servo loop (Fig. 7; Fig. 4, 457), the data transfer driver comprising: a preamplifier (Fig. 4, 401) comprising a plurality of head interfaces, each head interface electrically connected to a transducer head for controlling the transducer head for data read and/or write operations (Fig. 4, 411-412, 421-422); a mode controller electrically connected to each head interface (Fig. 4, 431) and responsive to a servo controller (inherent that servo controller needed to provide

the go ahead to read and write on the media; i.e. an indication has to be provided that head positioned properly before reading and/or writing) for controlling the operation of each head interface for selectively reading data from at least one recording surface via at least one transducer head while simultaneously writing data to at least one recording surface (or another recording surface) via at least one transducer head (col. 5, lines 59-63; col. 6, lines 58-61; col. 7, lines 29-31; col. 7, lines 49-65; implications of col. 6, lines 19-23).

Re claims 3 and 32; Chew et al disclose that the mode controller controls the operation of the head interfaces based on configuration information (from Fig. 4, 455, 402, ultimately from host), wherein the configuration information includes data transfer mode (Fig. 4, note that serial interface 431 activates read channel post-amp and write pre-driver) and transducer head selection information (Fig. 4, note that serial interface 431 activates read/write head selects).

Re claims 5 and 34; Chew et al disclose a control interface connected to the mode controller, the control interface for receiving configuration information wherein the mode controller controls the operation of the head interfaces based on the configuration information (Fig. 4, 455).

Re claims 6 and 35; Chew et al disclose that each head interface comprises: a read circuit for controlling the corresponding transducer head to read data from a recording surface, and a write circuit for controlling the corresponding transducer head to write data to a recording surface (Fig. 4, 411, 421).

Re claim 30; the limitations at this claim are satisfied based on the discussion above, since the limitations at this claim are encompassed by the limitations at claims 1 and 3.

Re claim 36; Chew et al disclose that the mode controller further controls the operation of the head interfaces based on the configuration information for writing data to a recording surface via a transducer head while reading data from the recording surface via that same transducer head (col. 7, lines 49-51).

Allowable Subject Matter

4. Claims 40-49 are allowed over the prior art of record.

Claims 40-41 are allowed over the prior art of record for the reasons provided in the previous Office Action mailed August 10, 2004.

Claims 42-43 are allowed over the prior art of record for the reasons provided in the Office Action mailed February 17, 2004.

Claim 44 now substantially includes the limitations of previous claims 1 and 2, and therefore is allowable over the prior art of record for the reason provided in the previous Office Action mailed August 10, 2004.

Claim 45 now substantially includes the limitations of previous claims 1 and 7, and therefore is allowable over the prior art of record for the reason provided in the previous Office Action mailed August 10, 2004. Claims 46-49 are likewise allowable over the prior art of record since they depend on claim 45.

5. Claims 12 and 37-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Re claim 12; the prior art of record, and in particular Chew et al (US 6,567, 233 B1), fails to teach or suggest that the mode controller controls the operation of each head interface for selectively reading data from at least one recording surface via at least one transducer head for a distance longer than a servo sector, while writing data to at least one recording surface via at least one transducer head.

Re claim 37; the prior art of record, and in particular Chew et al (US 6,567,233 B1), fails to teach or suggest reading the reference pattern from the reference disk via a transducer head and using the read clock signal and the servo position information to position and maintain one or more other transducer heads on one or more data disk recording surfaces while writing final servo patterns onto the one or more data disk recording surfaces.

Response to Arguments

6. Applicant's arguments filed February 15, 2005 have been fully considered but they are not persuasive.

With respect to claim 1, Applicant argues that Chew does not disclose any of the body of claim 1, but fails to explain why that is. Applicant simply states that Chew discloses alternately reading from staggered servo sectors on alternative sides of a disk in alternate fashion. This is not persuasive.

With respect to claim 3, Applicant argues that the serial interface 431 in Chew is not configurable to use configuration information (and that this ex; rather, the serial interface is hardwired to toggle reading of servo information between the heads. This is not persuasive since Chew provides for the read/write head enable 432 to be modified (i.e. configurable) to allow selection of different read heads during a write operation.

Further with respect to claim 3, Applicant argues that the serial interface 431 in Chew cannot be configured based on configuration information to use different data transfer modes. This is not persuasive since the output of the serial interface is used by the read/write head enable 432 to determine which head is being used for recording and which heads are being used for reading.

With respect to claim 5, Applicant argues that serial interface 455 cannot receive configuration information and therefore does not provide the configuration information to serial interface 431. As discussed above, this argument is not persuasive for the reason the argument that the serial interface 431 does not use configuration information is not persuasive. In buttressing this argument, Applicant states that the instruction from the host CPU is not configuration information. The Applicant does not clarify this distinction, and therefore this argument is not persuasive.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan I. Davidson whose telephone number is (571) 272-7552. The examiner can normally be reached on Mondays, Tuesdays, and Thursdays from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth, can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DID
Dan I Davidson
June 9, 2005

DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
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